REMARKS / ARGUMENTS

The present application includes pending claims 1-42, all of which have been rejected. The Applicant respectfully submits that the claims define patentable subject matter.

Claims 1-42 were objected to because of informality. Claims 1-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over USP 6,643,292 ("Chapman"), in view of USPP 2002/0131363 ("Beshai") and USP 6,578,086 ("Regan"). The Applicant respectfully traverses these rejections at least for the reasons previously set forth during prosecution and at least based on the following remarks.

I. CLAIM OBJECTIONS FOR USING "THE" AND "SAID"

Claims 1-42 were objected to because of informalities. The Examiner states that "Applicant sometimes used "the", but sometimes used "said" for antecedent terms." The Applicant respectfully disagrees and submits that all claims 1-42 are not inconsistent and they comply with the applicable statutory requirements. For example, the Applicant is consistently using "the" to refer back to terms in the preamble, and "said" to refer back to terms in the body of the claim. Therefore, since the Examiner has not cited any MPEP section for justifying an objection based on "consistency", the Applicant submits that no amendments are necessary. Furthermore, if this claim objection is maintained on the next Office Action, the Applicant respectfully requests

that the Examiner provide an MPEP citation that defines the permissible use of "the" and "said" for purposes of establishing claim consistency.

REJECTION UNDER 35 U.S.C. § 103

The MPEP states the following regarding the requirements for establishing a *prima facie* case of obviousness:

> The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."

See the MPEP at § 2142, citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006), and *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval). "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art" *See id.,* § 2143.01. Furthermore, in order to render the claims obvious, the asserted prior art combination must **teach or suggest each and every claim feature**. *See In re Royka*, 490 F.2d 981 (CCPA 1974) (to establish *prima facie* obviousness of a claimed invention, all the claim features must be

taught or suggested by the prior art)[1]; *see also In re Wada and Murphy*, Appeal 2007-3733, citing *In re Ochiai*, 71 F.3d 1565, 1572 (Fed. Cir. 1995) (A proper obviousness determination requires that an Examiner make "a searching comparison of the claimed invention – **including all its limitations** – with the teaching of the prior art.")

If a *prima facie* case of obviousness is not established, the Appellant has no obligation to submit evidence of nonobviousness:

> The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

See MPEP at § 2142.

With these principles in mind, the Applicants now turn to the claim rejections in particular.

II. The Proposed Combination of Chapman, Beshai and Regan Does Not Render Claims 1-42 Unpatentable

A. Independent Claims 1, 11, 21, 31 and 41

1. The Examiner Has Not Established That It Would Be Obvious To Combine Chapman, Beshai and Regan

With regard to the rejection of independent claim 1 under 35 U.S.C. § 103(a), the Applicant submits that the combination of Chapman, Beshai and Regan does not disclose or suggest at least the limitation of "identifying an optimal communication path

[1] Emphasis added except where noted otherwise.

from among said communication band and said communication channel based on said aggregated messages in said single multi-protocol layer," as recited by the Applicant in independent claim 1.

The Office Action states the following:

> For claims 1, 11, 21, 31, and 41, Chapman teaches a method, a machine-readable storage (see processor and protocols in Fig. 8. It means that machine-readable storage is used), a system (see Fig. 8) for providing enhanced connectivity (packet data transport mechanism, see title) in multi-protocol network (TCP/IP, see Fig. 8, and DHCP, see col. 5, line 17, and RSVP, see col. 6, line 50. All are used for this system. In addition, it is known in the art that based on IEEE 802.11 standard, measurement protocol and TPC protocol can be used), comprising:
>
> aggregating messages of each communication channel from a physical layer (see Encapsulation Module 84 in Fig. 8; In Internet terminology, aggregating traffic streams by encapsulating them into a single IP stream is often called tunneling, see col. 2, lines 55-57) of each communication channel (see three customer equipments to input module in Fig. 8. Each customer equipment occupies a channel) associated with each of a plurality of protocols (TCP/IP, see Fig. 8, and DHCP, see col. 5, line 17, and RSVP, see col. 6, line 50) in a single multi-protocol layer of the multi-protocol network (see 84 in Fig. 8, and It is commonly understood in the field of the present invention that a layer under the networking layer is called "transport" layer ... This is in contrast to the layered model of the OSI, see col. 2, lines 33-35 and lines 33-42).
>
> However, Chapman fails to specifically teach the connectivity in a multi-band.
>
> Beshai teaches the connectivity in a multi-band (multi-band network, see [0100]).
>
> Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Chapman with Beshai to obtain the invention as specified, for varieties of users and services.

See Office Action at pages 2-3. In the Office Action, the Examiner has conceded that the combination of Chapman and Beshai does not disclose the above limitation. More specifically, the Office Action (at p. 3) states:

> Further, Chapman in view of Beshai does not teach identifying an optimal communication path from among said communication channel based on said single multi-protocol; and establishing a communication session using said identified optimal communication path.

The Examiner then relies for support on Regan and states the following:

> Regan teaches
>
> identifying an optimal communication path from among said communication channel based on said aggregated messages in said single multi-band, multi-protocol layer (identify the optimal network routing paths at the link layer, see col. 2, lines 5-6. As shown above, the link layer has aggregated messages in the single multi-band, multiprotocol layer); and
>
> establishing a communication session using said identified optimal communication path (see 202/204 with TX in Fig. 2. It is known in the art that once the optimal communication path is established, it will be used for establishing a communication session. Refer to cited Melick reference as evidence, see Abstract).
>
> Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Chapman with Beshai and Regan to obtain the invention as specified, for efficient transmission of the packets/sessions to save time and cost through optimum path.

(*See* Office Action at p. 3-4). Putting aside for the moment whether or not this is an accurate assessment of Regan, the Examiner fails to provide "articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness" in the detailed manner described in KSR.

Specifically, the Examiner is required to provide "some articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness." *See KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007) quoting *In re Kahn*, 441 F.2d 997,988 (CA Fed. 2006). Put another way, the Examiner should "identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." *KSR*, 127 S. Ct. at 1741. The Examiner should make "explicit" this rationale of "the apparent reason to combine the known elements in the fashion claimed," including a detailed explanation of "the effects of demands known to the design community or present in the marketplace" and "the background knowledge possessed by a person having ordinary skill in the art." *Id.*

The Examiner attempts to support the combination of *Chapman and Beshai* as follows:

> Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Chapman with Beshai **to obtain the invention as specified, for varieties of users and services**.

(*See id.*, p. 3; emphasis added). In addition, the Examiner attempts to support the combination of *Chapman, Beshai and Regan* as follows:

> Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Chapman with Beshai and Regan **to obtain the invention as specified, for efficient transmission of the packets/sessions to save time and cost through optimum path**.

(*See id.*, p. 4; emphasis added). These unsupported, conclusory allegations do not provide "articulated reasoning with some rationale underpinning to support the legal

conclusion of obviousness" in the detailed manner described in KSR. Instead, the Office Action appears to be proposing the combinations based solely on improper hindsight. The generic benefit statements of "to obtain the invention as specified, for varieties of users and services" and "to obtain the invention as specified, for efficient transmission of the packets/sessions to save time and cost through optimum path" do not constitute an articulated reasoning with a rational underpinning, as required by the MPEP. As such, the rejections based on the proposed combinations of Chapman, Beshai and Regan are improper and should be withdrawn.

2. Even If Combined, Chapman, Beshai and Regan Fail To Disclose Or Suggest All Of The Elements Of Claims 1-42

Even if Chapman, Beshai and Regan are combined in the manner suggested by the Office Action, claims 1-42 are still patentable because the resulting combination does not disclose or suggest at least the limitation of "identifying an optimal communication path from among said communication band and said communication channel based on said aggregated messages in said single multi-protocol layer," as recited by the Applicant in independent claim 1. The Office Action states the following with regard to the teachings of Regan:

> Regan teaches
>
> identifying an optimal communication path from among said communication channel based on said aggregated messages in said single multi-band, multi-protocol layer (identify the optimal network routing paths at the link layer, see col. 2, lines 5-6. As shown above, the

> link layer has aggregated messages in the single multi-band, multiprotocol layer); and
>
> establishing a communication session using said identified optimal communication path (see 202/204 with TX in Fig. 2. It is known in the art that once the optimal communication path is established, it will be used for establishing a communication session. Refer to cited Melick reference as evidence, see Abstract).

See Office Action at p. 3-4. Regan, at col. 2, lines 4-7, discloses that distance vector algorithms are typically utilized by bridges to identify the optimal network routing paths at the link layer (e.g., layer 2) of the OSI network model. In other words, Regan simply discloses that **optimal network routing paths are identified by using a distance vector algorithm**, such as the Spanning Tree Protocol (STP), standardized in IEEE 801.2d. Regan, at col. 2, lines 4-7 or any remaining citation, does not disclose that identifying an optimal communication path from among a communication band and a communication channel is based on aggregated messages in a single multi-protocol layer.

Accordingly, the proposed combination of Chapman, Beshai and Regan does not render independent claim 1 unpatentable, and a *prima facie* case of obviousness has not been established. The Applicant submits that claim 1 is allowable. Independent claims 11, 21, 31 and 41 are similar in many respects to the method disclosed in independent claim 1. Therefore, the Applicant submits that independent claims 11, 21, 31 and 41 are also allowable over the references cited in the Office Action at least for the reasons stated above with regard to claim 1.

B. Rejection of Dependent Claims 2-10, 12-20, 22-30, 32-40 and 42

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 11, 21, 31 and 41 under 35 U.S.C. § 103(a) as being unpatentable over Chapman in view of Beshai and Regan has been overcome and requests that the rejection be withdrawn. Additionally, claims 2-10, 12-20, 22-30, 32-40 and 42 depend from independent claims 1, 11, 21, 31 and 41, respectively, and are, consequently, also respectfully submitted to be allowable based on the above arguments.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 2-10, 12-20, 22-30, 32-40 and 42.

In general, the Office Action makes various statements regarding claims 1-42 and the cited references, which statements are now moot in light of the above. Thus, the Applicant will not address such statements at the present time. However, the Applicant expressly reserves the right to challenge such statements in the future should the need arise (e.g., if such statement should become relevant by appearing in a rejection of any current or future claim).

CONCLUSION

Based on at least the foregoing, the Applicant believes that all claims 1-42 are in condition for allowance. If the Examiner disagrees, the Applicant respectfully requests a telephone interview, and requests that the Examiner telephone the undersigned Attorney at (312) 775-8176.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

A Notice of Allowability is courteously solicited.

Respectfully submitted,

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